

## Methodology features of teaching stochastics to university students of the biology specialization

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### Abstract

© 2017 Authors. The purpose of the research is to build a methodological system for teaching stochastics to university students of the Biology specialization in the context of implementing a professional-applied orientation. The leading method of researching this aspect is the modeling of the conceptual basis of the methodological system for teaching stochastics, which allows to form a system of mathematical knowledge and skills necessary for understanding the fundamentals of the process of mathematical modeling and statistical processing of biological data in professional activity; to develop practical application skills of statistical methods in biological research. In this article, the authors' methodology of forming professional competence of future specialists of the Biology specialization through the implementation of professionally-applied teaching stochastics is presented. The specificity of our methodology for teaching stochastics to university students of the Biology specialization is that between the theoretical and practical aspects of stochastics, a deep content-methodological interrelationship has been established; the authors' system of professionally-applied tasks has been proposed, which includes, among other things, real tasks from the discipline of Biology that facilitates the integration of natural science knowledge based on the modeling method. The research carried out by the authors proved the effectiveness of the suggested methodology for teaching stochastics to university students of the Biology specialization. The article materials can be useful for lecturers of higher educational institutions and teachers of secondary schools with in-depth Biology studying when the suggested methodology for teaching the probability theory and mathematical statistics is applied.

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### Keywords

Methodological teaching system, Professional and applied orientation, Stochastics

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